Methodology Report

Stormwater System Development Charges

Prepared For

City of Sherwood

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SECTION 1

Introduction

Oregon legislation establishes guidelines for the calculation of system development charges (SDCs). Within these guidelines, local governments have latitude in selecting technical approaches and establishing policies related to the development and administration of SDCs. A discussion of this legislation follows, along with the methodology for calculating updated sanitary sewer SDCs for the City of Sherwood (the City) based on the recently completed Stormwater Master Plan (Murray, Smith & Associates, August 2016).

SDC Legislation in Oregon

In the 1989 Oregon state legislative session, a bill was passed that created a uniform framework for the imposition of SDCs statewide. This legislation (Oregon Revised Statute [ORS] 223.297-223.314), which became effective on July 1, 1991, (with subsequent amendments), authorizes local governments to assess SDCs for the following types of capital improvements:

- Drainage and flood control
- Water supply, treatment, and distribution
- Wastewater collection, transmission, treatment, and disposal
- Transportation
- Parks and recreation

The legislation provides guidelines on the calculation and modification of SDCs, accounting requirements to track SDC revenues, and the adoption of administrative review procedures.

SDC Structure

SDCs can be developed around two concepts: (1) a reimbursement fee, and (2) an improvement fee, or a combination of the two. The **reimbursement fee** is based on the costs of capital improvements *already constructed or under construction*. The legislation requires the reimbursement fee to be established or modified by an ordinance or resolution setting forth the methodology used to calculate the charge. This methodology must consider the cost of existing facilities, prior contributions by existing users, gifts or grants from federal or state government or private persons, the value of unused capacity available for future system users, rate-making principles employed to finance the capital improvements, and other relevant factors. The objective of the methodology must be that future system users contribute no more than an equitable share of the capital costs of *existing* facilities. Reimbursement fee revenues are restricted only to capital expenditures for the specific system with which they are assessed, including debt service.

The methodology for establishing or modifying an **improvement fee** must be specified in an ordinance or resolution that demonstrates consideration of the *projected costs of capital improvements identified in an adopted plan and list*, that are needed to increase capacity in the system to meet the demands of new development. Revenues generated through improvement fees are dedicated to capacity-increasing capital improvements or the repayment of

debt on such improvements. An increase in capacity is established if an improvement increases the level of service provided by existing facilities or provides new facilities.

In many systems, growth needs will be met through a combination of existing available capacity and future capacity-enhancing improvements. Therefore, the law provides for a **combined fee** (reimbursement plus improvement component). However, when such a fee is developed, the methodology must demonstrate that the charge is not based on providing the same system capacity.

Credits

The legislation requires that a credit be provided against the improvement fee for the construction of "qualified public improvements." Qualified public improvements are improvements that are required as a condition of development approval, identified in the system's capital improvement program, and either (1) not located on or contiguous to the property being developed, or (2) located in whole or in part, on or contiguous to, property that is the subject of development approval and required to be built larger or with greater capacity than is necessary for the particular development project to which the improvement fee is related.

Update and Review

The methodology for establishing or modifying improvement or reimbursement fees shall be available for public inspection. The local government must maintain a list of persons who have made a written request for notification prior to the adoption or amendment of such fees. The legislation includes provisions regarding notification of hearings and filing for reviews. The notification requirements for changes to the fees that represent a modification to the methodology are 90-day written notice prior to first public hearing, with the SDC methodology available for review 60 days prior to public hearing.

Other Provisions

Other provisions of the legislation require:

- Preparation of a capital improvement program (CIP) or comparable plan (prior to the establishment of a SDC), that includes a list of the improvements that the jurisdiction intends to fund with improvement fee revenues and the estimated timing, cost, and eligible portion of each improvement.
- Deposit of SDC revenues into dedicated accounts and annual accounting of revenues and expenditures, including a list of the amount spent on each project funded, in whole or in part, by SDC revenues.
- Creation of an administrative appeals procedure, in accordance with the legislation, whereby a citizen or other interested party may challenge an expenditure of SDC revenues.

The provisions of the legislation are invalidated if they are construed to impair the local government's bond obligations or the ability of the local government to issue new bonds or other financing.

SECTION 2

Stormwater SDC Methodology

Overview

The general methodology used to calculate stormwater SDCs begins with an analysis of system planning assumptions to determine growth's capacity needs, and how they will be met through existing system available capacity and capacity expansion. Then, the capacity to serve growth is valued to determine the "cost basis" for the SDCs, which is then divided by the total growth capacity units to determine the system wide unit costs of capacity. The final step is to determine the SDC schedule, which identifies how different developments will be charged, based on their estimated capacity requirements.

Projected Flows and Equivalent Dwelling Units

The primary relevant design criteria for the stormwater system is total impervious area. The City and Clean Water Services define one EDU as having 2,640 square feet (sf) of impervious area.

Table 1 shows current and future future equivalent dwelling units (EDUs) for the stormwater system. The City's billing system shows that there are currently 11,305 equivalent service units (ESUs) in the City with 5,515 residential, 5,061 multi-family and 729 commercial.

To estimate future stormwater EDUs in the study area that are available to serve growth in the study area, an analysis of GIS data was conducted by the City's Master Plan consultant. As shown in Table 1, the projected future EDUs total 7,710. This is accounted for through projected increases in EDUs in three growth areas within the City: infill of the Urban Growth Boundary, Brookman Concept Area, and Tonquin Employment Area.

Table 1
City of Sherwood Stormwater SDC Analysis
System Planning Assumptions

Item	Current	Build-out	Growth
ESUs (from Billing System)			
Residential	5,515		
Multifamily	5,061		
Commercial	729		
Total Existing ESUs	11,305		
EDUs (from Master Plan data)			
Infill Urban Growth Boundary			3,210
Brookman Concept Area			1,690
Tonquin Employment Area			2,810
Total Future EDUs			7,710

Sources: Stormwater Master Plan & City Billing Data

SDC Cost Basis

The capacity needed to serve new development will be met through a combination of existing available system capacity and additional capacity added by planned system improvements. The reimbursement fee is intended to recover the costs associated with the growth-related (or available) capacity in the existing system; the improvement fee is based on the costs of capacity-increasing future improvements needed to meet the demands of growth. The value of capacity needed to serve growth in aggregate within the planning period is referred to as the "cost basis".

Reimbursement Fee Cost Basis

Table 2 shows the existing system value – based on original cost -- of the City's stormwater system. With the concurrence of City staff, and according to previous system development charge reports prepared for the City, it is assumed that all assets acquired prior to Year 2000 were contributed, gifted, donated, or grant-funded, and/or constructed by private development, and were excluded from the cost basis. Approximately $4.8 million was identified by the City to have been funded by private development, so is excluded from the cost basis. For the remaining infrastructure constructed after 2000, the City's Master Plan consultant estimated the unused capacity in the stormwater system, based on the weighted average available capacity in the trunk sewer system as determined from hydraulic modeling. The growth share is estimated to be 20 percent of capacity, from which the reimbursement fee cost basis is calculated at $717,586.

Table 2
City of Sherwood Stormwater SDC Analysis
Reimbursement Fee Cost Basis

Description	Original Cost	City Cost	Growth Share %	Total $
Infrastructure				
Original Assets (Pre - 2000)	$13,256,307	$0	20%	$0
Private Development	$4,821,545	$0	20%	$0
Post 2000 Infrastructure	$3,587,931	$3,587,931	20%	$717,586
Total	**$21,665,783**	**$3,587,931**		**$717,586**

Source: Costs from City fixed asset records; growth % from MSA

Improvement Fee Cost Basis

Planned future capacity-increasing improvements are shown in Table 3. System capacity may be expanded through the upgrade of existing facilities or the construction of new facilities. Based on the capital improvements identified in the Master Plan, capacity increasing improvements in the City's local stormwater system include upsizing of existing stormwater facilities to be funded by the City[1]. Table 3 identifies the portion of each project that is related to meeting the capacity needs of future growth, as determined by the City's Master Plan consultant. A portion of Master Plan costs are also included (based on the portion of the City-funded project costs that are growth related). The cost basis also includes the full cost of the SDC study.

[1] For pupose of evaluating the City's local stormwater SDC, the cost of improvements to the regional system operated by Clean Water Services (CWS) are excluded.

The methodology allows for the improvement fee cost basis to be reduced to reflect available cash balances in the City's SDC Inprovement Fund from fees collected previously. The City reported a Fund cash balance of $0 as of June 30, 2015 the end of the most recent Fiscal Year. Therefore, there is no deduction shown from the improvement fee cost basis.

Table 3
City of Sherwood Stormwater SDC Analysis
Improvement Fee Cost Basis

PROJECT	Time Period	Cost Estimate	SDC Portion %	SDC Portion $
Condition Projects				
SW Willamette St., etc.	10-Year	$370,000	0%	$0
SW Merryman St, N to SW Oregon St.	20-Year	$680,000	0%	$0
SW Lower Roy St. to SW Oregon, etc.	20-Year	$580,000	0%	$0
SW Galbreath Dr.	20-Year	$80,000	0%	$0
SW Meinecke Rd	20-Year	$70,000	0%	$0
SW Sherwood Blvd & Langer Dr, etc.	20-Year	$330,000	0%	$0
Subtotal		**$2,110,000**		$0
Stormwater Management Projects				
Extended Detention Basin; Existing Ponds SW Oregon (Predesign)	5-Year	$35,000	0.0%	$0
NW 2nd St. & NW Park St. SW Facility Rehab (design)	5-Year	$35,000	0.0%	$0
Proprietary Catch Basin 23159 SW St. Charles Way	5-Year	$70,000	0.0%	$0
Proprietary Catch Basin 23385 SW St. Charles Way	5-Year	$70,000	0.0%	$0
Swale SW Washington St & SW Meinecke Rd	5-Year	$110,000	2.0%	$2,200
Extended Detention Basin; Existing Ponds SW Oregon	10-Year	$150,000	19.0%	$28,500
Extended Detention Basin; SE of Gleneagle Dr	10-Year	$170,000	17.0%	$28,900
Proprietary Vault; SW Gleneagle Dr.	10-Year	$110,000	1.0%	$1,100
Proprietary Catch Basin 16678 SW Gleneagle Dr.	10-Year	$80,000	0.0%	$0
Proprietary Catch Basin 16738 SW Gleneagle Dr.	10-Year	$70,000	4.0%	$2,800
Extended Detention Basin SW Pacific Hwy	20-Year	$220,000	39.0%	$85,800
Swale SW Willamette	20-Year	$120,000	7.0%	$8,400
Swale SW Murdock Rd.	20-Year	$120,000	0.0%	$0
Extended Detention Basin SW Murdock Rd	20-Year	$330,000	57%	$188,100
Riparian Area Planting; Confluence to SW Sunset Blvd	20-Year	$344,000	0%	$0
Subtotal		**$2,034,000**		**$345,800**
Other Projects				
Master Plan	20-Year	$250,000	8.3%	$20,861
SDC Study	5-Year	$6,000	100.0%	$6,000
Hydromodification Study	10-Year	$125,000	8.3%	$10,431
Subtotal Other		**$381,000**		**$37,292**
Total		**$4,525,000**		**$383,092**

Source: Stormwater Master Plan

SDC Schedule

System-Wide SDC Schedule

The reimbursement and improvement unit costs of capacity are determined by dividing the reimbursement and improvement fee cost bases, by the growth-related EDUs shown in Table 1. As shown in Table 4, on a system-wide basis, the SDC per EDU is $143 and is comprised of $50 improvement fee and $93 reimbursement fee. Based on an impervious surface allowance per EDU of 2,640 (from Table 1), the resulting SDC on a per square-foot basis is $0.54 per square foot. The City's current stormwater SDC, in effect for 2016, is $0.046 per square foot.

Table 4
City of Sherwood Stormwater SDC Analysis
SDC Calculation - System-wide

	Improvement	Reimbursement	Total
Cost Basis	$383,092	$717,586	$1,000,678
Growth EDUs	7,710	7,710	7,710
Cost per EDU	**$50**	**$93**	**$143**

Area-Specific SDC Schedule

City staff requested that an area-specific SDC structure also be developed for consideration. However, as discussed in the Stormwater Master Plan, stormwater improvements related to the Brookman Concept Area and the Tonquin Employment Area (TEA) planning overlay areas were excluded from the Master Plan CIP as those improvements will essentially be local in nature and therefore the responsibility of developers. Developments in these areas should be responsible for paying the recommended system-wide stormwater SDC which will address stormwater management and planning projects recommended in the Master Plan and which address growth-related limitations of the overall system. As a result, there is no area-specific SDC structure recommended for stormwater.